

Amendment to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) **An** Optical disk system comprising at least one photo detector for detecting at least a part of said optical disk and in response generating detection signals and comprising at least one amplifier for amplifying detection signals and comprising at least one slicer for slicing amplified detection signals and comprising at least one delay-difference detector for detecting delay differences in sliced amplified detection signals, characterized in that said delay-difference detector is delaylineless and comprises combinatorial-logic circuits and sequential-logic circuits, **said combinatorial-logic circuits for receiving output signals from said several sub-detectors and for generating signal pairs to be supplied to one of a first pair or a second pair of sequential logic circuits, said sequential logic circuits generating sequential logic circuit output signal pairs to be supplied directly to at least one analog adder/subtractor for adding/subtracting said sequential logic circuit output signal pairs.**

2. (Currently Amended) **An** Optical disk system according to claim 1, ~~characterized in that~~ **wherein** said delay-difference detector comprises a first pair of sequential-logic circuits for detecting delay differences between rising edges and ~~comprises~~ a second pair of sequential-logic circuits for detecting delay differences between falling edges.

3. (Currently Amended) ~~An~~ Optical disk system according to claim 2, ~~characterized in that wherein~~ said delay-difference detector further comprises at least one analog adder/subtractor for adding/subtracting sequential-logic circuit output signals.

4. (Currently Amended) ~~An~~ Optical disk system according to claim 3, ~~characterized in that wherein~~ said delay-difference detector comprises at least one low pass filter coupled to an output of said at least one analog adder/subtractor.

5. (Currently Amended) ~~An~~ Optical disk system according to claim 3, ~~characterized in that wherein~~ said delay-difference detector comprises at least one low pass filter located between at least one sequential-logic circuit and said at least one analog adder/subtractor.

6. (Currently Amended) A Delay-difference detector for use in an optical disk system comprising at least one photo detector for detecting at least a part of said optical disk and in response generating detection signals and comprising at least one amplifier for amplifying detection signals and comprising at least one slicer for slicing amplified detection signals and comprising at least one delay-difference detector for detecting delay differences in sliced amplified detection signals, characterized in that said delay-difference detector is delaylineless and comprises combinatorial-logic circuits and sequential-logic circuits , said combinatorial-logic circuits for receiving output signals from said several sub-detectors and for generating signal pairs to be supplied to one of a first pair or a second pair of sequential logic circuits, said sequential logic circuits generating sequential logic circuit output signal pairs to be supplied directly to at least one analog adder/subtractor for adding/subtracting said sequential logic circuit output signal pairs.

7. (Currently Amended) A Delay-difference detector according to claim 6, wherein ~~characterized in that~~ said delay-difference detector comprises a first pair of sequential-logic circuits for detecting delay differences between rising edges and comprises a second pair of sequential-logic circuits for detecting delay differences between falling edges.

8. (Currently Amended) A Delay-difference detector according to claim 7, wherein ~~characterized in that~~ said delay-difference detector further comprises at least one analog adder/subtractor for adding/subtracting sequential-logic circuit output signals.

9. (Currently Amended) A Method for use in an optical disk system for providing delay difference detection without requiring delaylines, and the method comprising, ~~the steps of~~

detecting at least a part of said optical disk, ~~and of in response~~
generating detection signals in response to said detection, and of
amplifying said detection signals, ~~and of~~
slicing said amplified detection signals ~~and of~~
detecting delay differences in said sliced amplified detection signals,
~~characterized in that wherein said step of detecting delay differences is~~ are delaylineless
and comprise combinatorial logic circuits and sequential logic circuits, said
combinatorial-logic circuits for receiving output signals from said several sub-
detectors and for generating signal pairs to be supplied to one of a first pair or a
second pair of sequential logic circuits, said sequential logic circuits generating
sequential logic circuit output signal pairs to be supplied directly to at least one
analog adder/subtractor for adding/subtracting said sequential logic circuit output
signal pairs ~~and comprises the substeps of combinatorial logic circuiting and sequential-~~
~~logic circuiting.~~

10. (Currently Amended) A Method according to claim 9, characterized in that ~~wherein~~
said step of detecting delay differences in said sliced amplified detection signals
further comprises: ~~the substeps of~~ detecting delay differences between rising edges and
~~of detecting delay differences between falling edges~~ in said sliced amplified detection
signals.

11. (Previously Cancelled)